

Remarks

The allowance of claim 11 is noted with appreciation.

The cover sheet to the Office Action indicates that claims 1-10 are rejected.

However, in the body of the Office Action (pages 2 and 3) there is no rejection of claims 4 and 5 and no grounds for rejection of these claims are presented. Therefore, Applicants are assuming that claims 4 and 5 have been allowed.

The Examiner has rejected claims 1-3 and 6-10 under 35 USC § 103(a) on the basis of Ross et al. in view of GB 2,286,232(Smith). This rejection is respectfully traversed.

In making the rejection, the Examiner has acknowledged that Ross does not teach applying only diagonal disposed parking brake forces to the wheels. The Examiner then says that Smith teaches applying only diagonally disposed parking forces to the wheels.

The Fig. 1 embodiment of Smith (with an actuator shown in Fig. 2) is described beginning at page 3 of Smith. In the second full paragraph of the detailed description, on page 3, the Smith patent recites "This in turn causes the brakes to be applied to all four wheels and thus prevents the vehicle from being driven." Thus, the Figs. 1 and 2 embodiments of Smith teach away from any diagonal application of any braking forces.

Thus, the Examiner's rejection is based on the Fig. 3 embodiment of Smith which is the embodiment that is understood to be described in the Abstract referred to by the Examiner. This embodiment is described beginning at page 5 of Smith. The Smith reference relates to operation of the service brakes of a vehicle and not to the parking brakes of a vehicle. On page 5, Smith recites: "...the four wheels 1-4 of the vehicle are again provided with brakes operated from a pedal-operated dual master cylinder 36 via hydraulic lines 38 and 39, each arranged to feed a

pair of wheels in a T configuration. As shown, each of the two lines operates on diagonally opposite wheels of the vehicle,...". This is a description of service brakes, not parking brakes.

In operation, as recited in the third full paragraph on page 5, Smith recites: "To apply the security device on leaving the vehicle the brake pedal is depressed to operate the master cylinder 36 and apply the brakes and the key 47 is used to apply the cutoff valve 45. Thus, when the pressure is removed from the brake pedal the brakes remain applied at wheels 1 and 4 preventing the vehicle from being driven. The key can be removed while the valve 45 is still applied."

Page 6, second paragraph, Smith recites: "On the drivers return the key can be used to de-operate the valve 45 so that all four wheels can be braked by the master cylinder as normal."

This points out that it is the service brakes that are being diagonally operated by the Smith system and not parking brakes.

This is reinforced by the next paragraph on page 6 of Smith which recites: "It is to be noted that should the valve 45 be unintentionally operated whilst the vehicle is being driven the vehicle can still be braked at the wheels 2 and 3 no brake pressure can be applied at the wheels 1 and 4 which are now isolated from the master cylinder with the brakes off."

With this discussion of Smith in mind, consider Applicants claims.

Independent claim 1 relates to a method of parking a vehicle having both service brakes and parking brakes. See Col. 2, lines 1-5 and Col. 9, lines 9-14, of Applicants' specification which references both types of brakes.

Claim 1 requires applying a first parking brake to brake at least one wheel attached to a first end portion of a first axle at one side of the vehicle without applying a parking brake to any wheel at the other end portion of the first axle opposite to said one end portion of the first axle.

In addition, claim 1 requires applying a second parking brake to brake at least one wheel

attached to a second end portion of a second axle at a second side of the vehicle opposite to the first side of the vehicle.

Therefore, these acts of claim 1 relate to applying first and second parking brakes.

As pointed out above, the disclosure of Smith relates to service brakes.

In addition, claim 1 also requires the act of “permitting the application of the service brakes to said at least one wheel attached to a first end portion of the first axle and to said at least one wheel attached to a second end portion of the second axle while the first and second parking brakes are applied.”

In contrast, as noted in the discussion above (see Smith, page 5, second paragraph), when the valve 45 of Smith is operated, fluid communication between the master cylinder 36 and the braking cylinders of the supplied wheels 1 and 4 is cut off. Therefore, the service brakes cannot be applied to wheels 1 and 4 of Smith while first and second parking brakes are applied as required by claim 1.

Furthermore, there would be no reason to modify Smith in the manner of Applicants’ claim 1 without Applicants’ own disclosure which cannot of course be used.

Also, one would not combine Smith with Ross et al. because Smith allows a condition of operation in which no brake pressure can be applied to two of the wheels (wheels 1 and 4) under certain operating conditions. No one would incorporate such a system in a wheel trailer braking system as disclosed in Ross et al. Furthermore, even if, for purposes of argument only, that Smith were somehow combined with Ross et al., this would result in a modification of the service brakes of Ross et al. and not the parking brakes.

Therefore, claim 1 should be in condition for allowance.

Claims 2, 3 and 6 depend directly or indirectly from claim 1 and should be allowable for the reasons given above in support of their parent claim and because each of these claims set forth an independently patentable combination of method acts.

For example, claim 3 specifies that the first and second axles comprise a tandem pair of axles. Smith does not relate to tandem axles. See for example page 5 of Smith where he recites: "Referring now to Fig. 3, the four wheels, 1-4 of the vehicle...". A tandem axle vehicle has at least one additional axle besides the tandem axle pair (e.g., a front axle). Thus, a vehicle with a tandem pair of axles has more than four wheels.

Smith thus relates to modification of the service brakes of wheels at the front and rear of a vehicle instead of a tandem axle pair. Furthermore, because Smith teaches a system in which some wheel brakes can be disabled under certain operating conditions, Smith would not be incorporated into tandem axles of a vehicle.

Therefore, claims 2, 3 and 6 should be allowable.

With reference to claim 7, this claim has been broadened and requires moving the vehicle to a location where it is to be parked and parking the vehicle with the only parking brakes applied being the parking brakes of diagonally disposed wheels coupled to a set of tandem axles.

This claim does not preclude also applying service brakes but specifically indicates the only parking brakes applied being those of diagonally disposed wheels coupled to a set of tandem axles.

The Smith reference relates to diagonally applying service brakes under certain conditions for vehicle antitheft purposes but says nothing about parking brakes. Furthermore, as explained above, Smith would not be applied to a set of tandem axles because in Smith

conditions are taught wherein the diagonally disposed service brakes may end up isolated and unavailable for braking purposes when the service brakes are applied.

Furthermore, Smith and Ross et al. simply would not be combined.

Therefore, claim 7 should be in condition for allowance.

Claim 8 requires the act of applying a first parking brake to a first wheel of one of the first and second axles and applying a second parking brake to a second wheel of the other of the first and second axles, the second wheel being at the opposite side of the longitudinal axis from the first wheel and further requires that the first and second parking brakes are the only parking brakes that are applied.

As pointed out above, Smith relates to service brakes. Smith would not be combined with Ross et al.

Smith and Ross et al. simply do not teach applying a first and second parking brakes at locations set forth in claim 8.

With respect to claim 9, this claim requires “applying the parking brakes of diagonally disposed wheels coupled to a set of tandem front and rear axles without applying any other parking brakes.”

Neither Ross et al. or Smith teach applying parking brakes diagonally. As pointed out above, Smith teaches some situations where service brakes may be applied diagonally, but not parking brakes. Furthermore, one would not modify a tandem axle vehicle such as shown by Ross et al. using Smith because of Smith’s teaching of disabling the operation of certain service brakes under certain conditions.

Furthermore, claim 9 also requires: “wherein the act of applying the parking brakes comprises applying the parking brake to at least one wheel on the front axle located at the side of

the longitudinal axis of the vehicle which is heaviest when the vehicle is unloaded and applying the parking brake to at least one wheel on the rear axle located at the side of the longitudinal axis of the vehicle which is lightest when the vehicle is unloaded.”

This applying act relating to the heaviest and lightest side of the vehicle is simply not shown or taught by Ross et al. or Smith. This is particularly true since Smith does not relate to tandem axles. Silence by Smith cannot be treated as a disclosure of this requirement of claim 9.

Therefore, claim 9 should be in condition for allowance.

Claim 10 relates to a method of applying parking brake forces to a moving vehicle (which does not preclude also applying service brake forces to a moving vehicle). In accordance with claim 10, this claim requires the act of “applying a parking brake to apply a parking brake force at a first location at one side of a vehicle corresponding to the heaviest side of the unloaded vehicle” and the act of “applying a parking brake to apply a parking brake force at a second location at a second side of a vehicle corresponding to the lightest side of the unloaded vehicle”. This claim also requires that: “the first location is forwardly of the second location and wherein the parking brakes are operated such that the parking brake forces applied by the parking brakes are only applied at the first and second locations.”

This claim 10 does not preclude also applying service brakes under these conditions nor does it preclude simultaneous application of the parking brakes.

Therefore, claim 10 should be allowable.

New claims 12-14 should also be allowable.

Neither Ross et al. or Smith relate to applying parking brakes at first and second locations as required by claim 10. Furthermore, neither Ross et al. nor Smith have or suggest the first

location being forwardly of the second location and the first location being at the heaviest side of the unloaded vehicle and the second location being at the lightest side of the unloaded vehicle.

Request for Interview

If any issues remain, the Examiner is formally requested to contact the undersigned attorney prior to issuance of the next Office Action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. Applicants submit the foregoing formal Amendment so that the Examiner may fully evaluate Applicants' position, thereby enabling the interview to be more focused.

This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

Respectfully submitted,

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